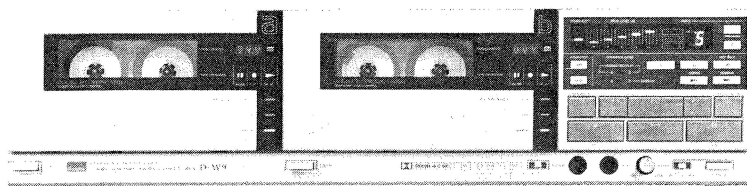


SERVICE MANUAL

COMPU-SYNCHRO DOUBLE CASSETTE DECK

SANSUI D-W9

(Silver & Black Model)



• SPECIFICATIONS

Track format.....	4-track/2-channel system
Tape speed.....	4.8 cm/sec.
Heads	
Record/play.....	High-Bs hard permalloy × 2
Erase.....	High-Bs double-gap ferrite × 2
Motors	
For normal tape speed	
.....	Electronically controlled DC motors × 2
For fast forward/rewind	
.....	DC motors × 2
For tape mechanism	
.....	DC motors × 2
Wow/flutter	0.04% max. (WRMS)
Fast forwarding (rewinding) time	
.....	Approx. 90 sec. (for C-60 tape)
Frequency response (—20 VU recording/playback)	
Normal (LH) tape ..	20 to 16,000 Hz
.....	(30 to 15,000 Hz ± 3 dB)
Chrome tape	20 to 18,000 Hz
.....	(30 to 17,000 Hz ± 3 dB)
Metal tape.....	20 to 19,000 Hz
.....	(30 to 18,000 Hz ± 3 dB)
Signal-to-noise ratio (recording/playback with metal tape)	
DOLBY NR OFF	Better than 58 dB
DOLBY NR ON	
B-TYPE	Better than 68 dB (above 5 kHz)
C-TYPE	Better than 78 dB (above 1 kHz)
Erase rate (metal tape)	
.....	70 dB min. (1 kHz)
Recording bias frequency	
.....	85 kHz
Input sensitivity/impedance	
LINE IN (REC).....	150 mV/47 kΩ
MIC	0.5 mV/(200 Ω ~ 5 kΩ)
Output level (1 kHz, 0 dB = 200 pwb/mm)	
LINE OUT (PLAY) ..	350 mV
Power requirements ...	120/220/240V
.....	50/60 Hz
For U.S.A. and Canada	
.....	120V (60 Hz)
Power consumption ...	25W
Dimensions.....	430 mm (16-15/16'')W
.....	111 mm (4-7/16'')H
.....	312 mm (2-5/16'')D
Weight.....	6.4 kg (14 lbs.) net
.....	7.6 kg (16.8 lbs.) packed

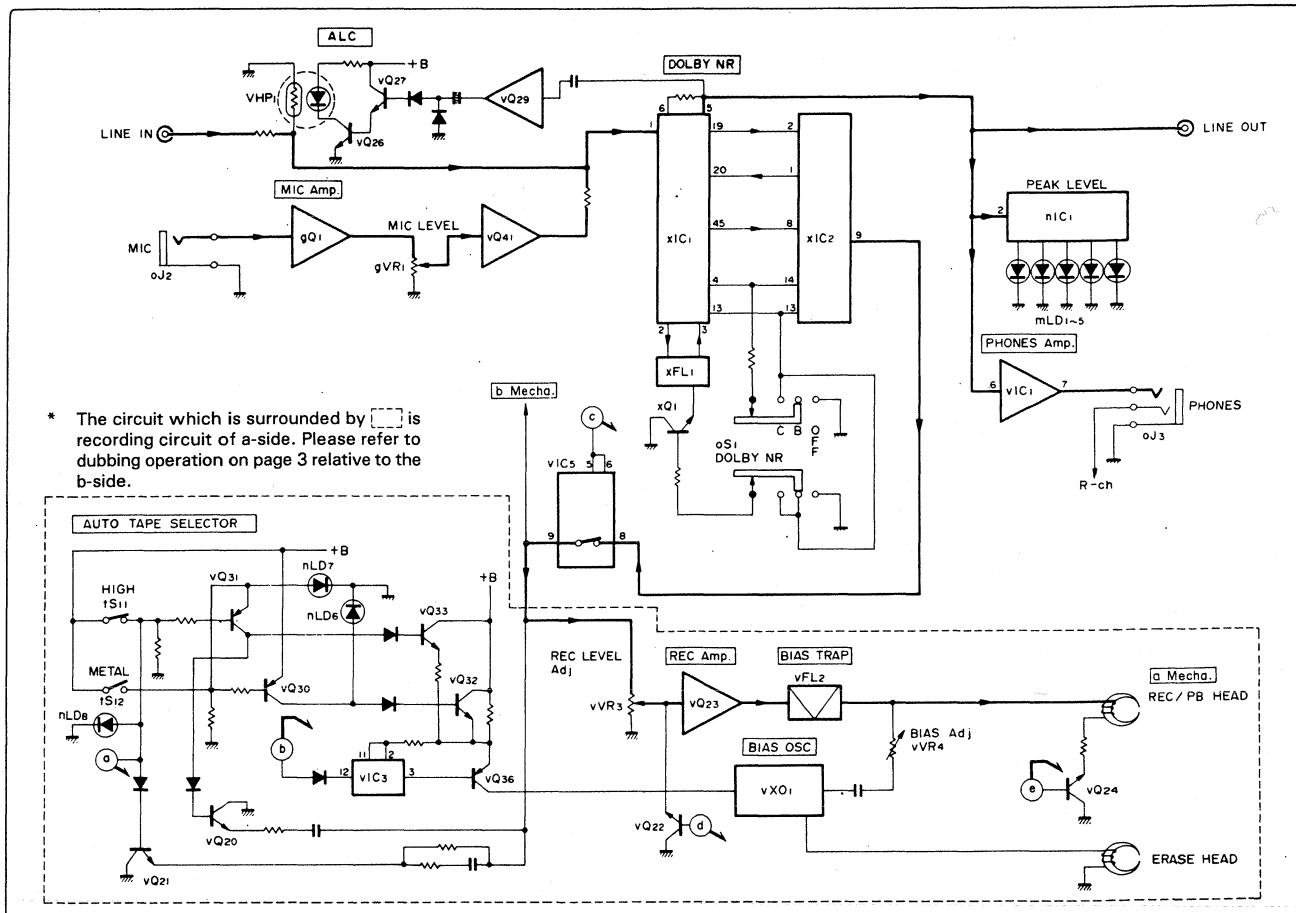
- * Design and specifications subject to change without notice for improvements.
- * Noise reduction system manufactured under license from Dolby Laboratories Licensing Corporation. "Dolby" and the double D symbol are trade marks of Dolby Laboratories Licensing Corporation.



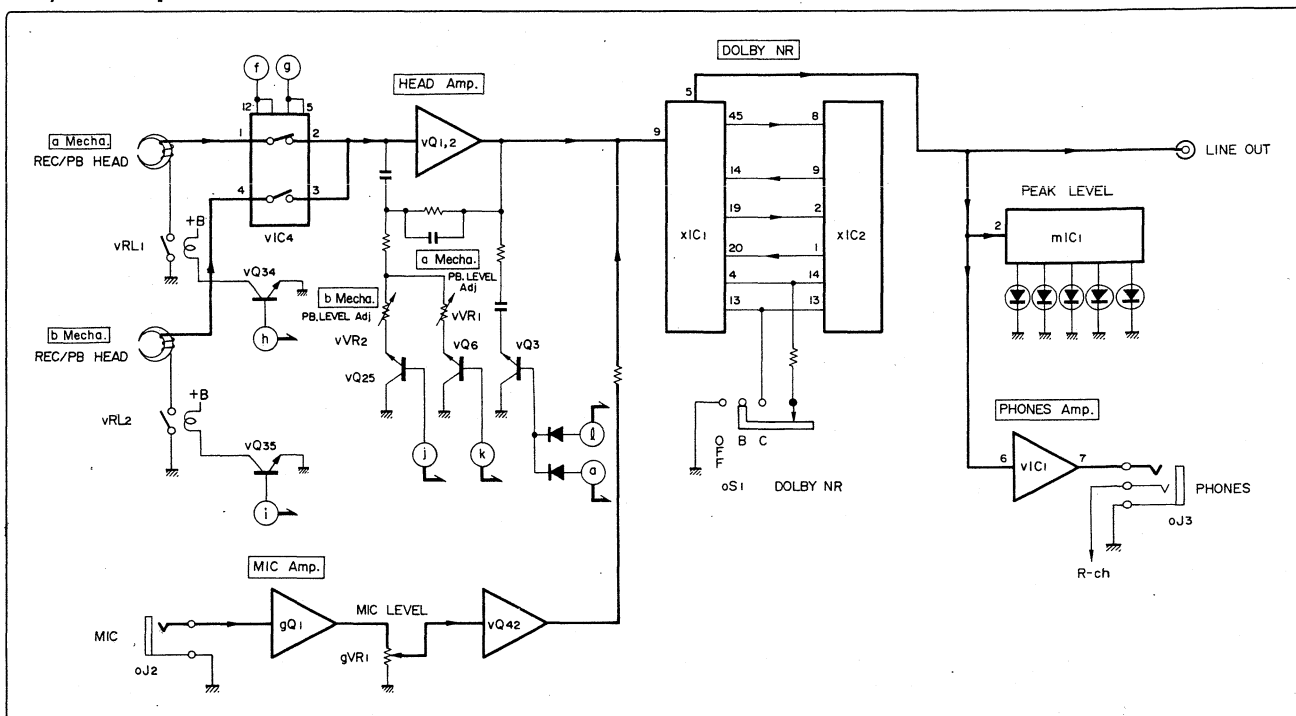
SANSUI ELECTRIC CO., LTD.

1. BLOCK DIAGRAM

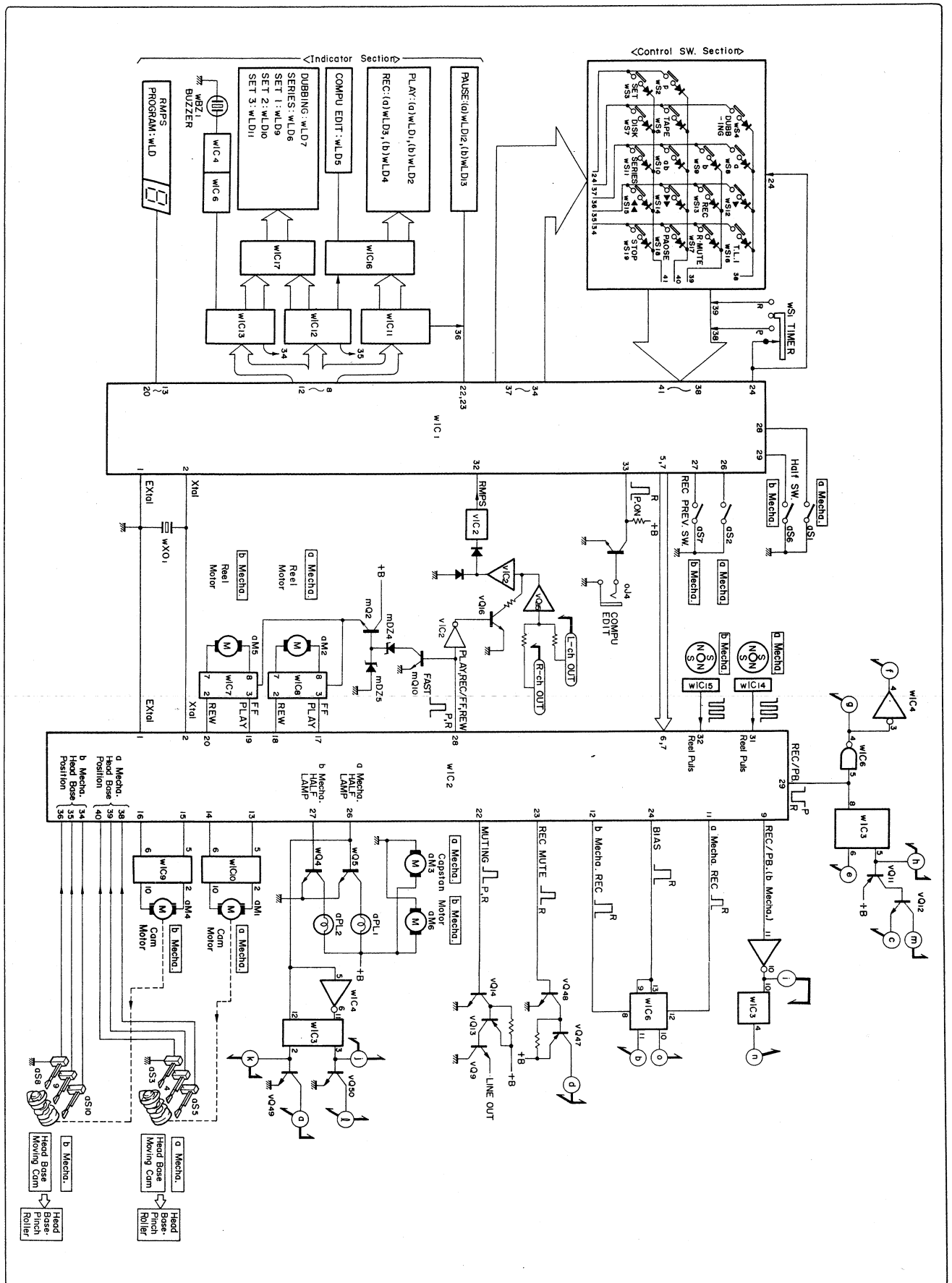
1-1. Recording Operation



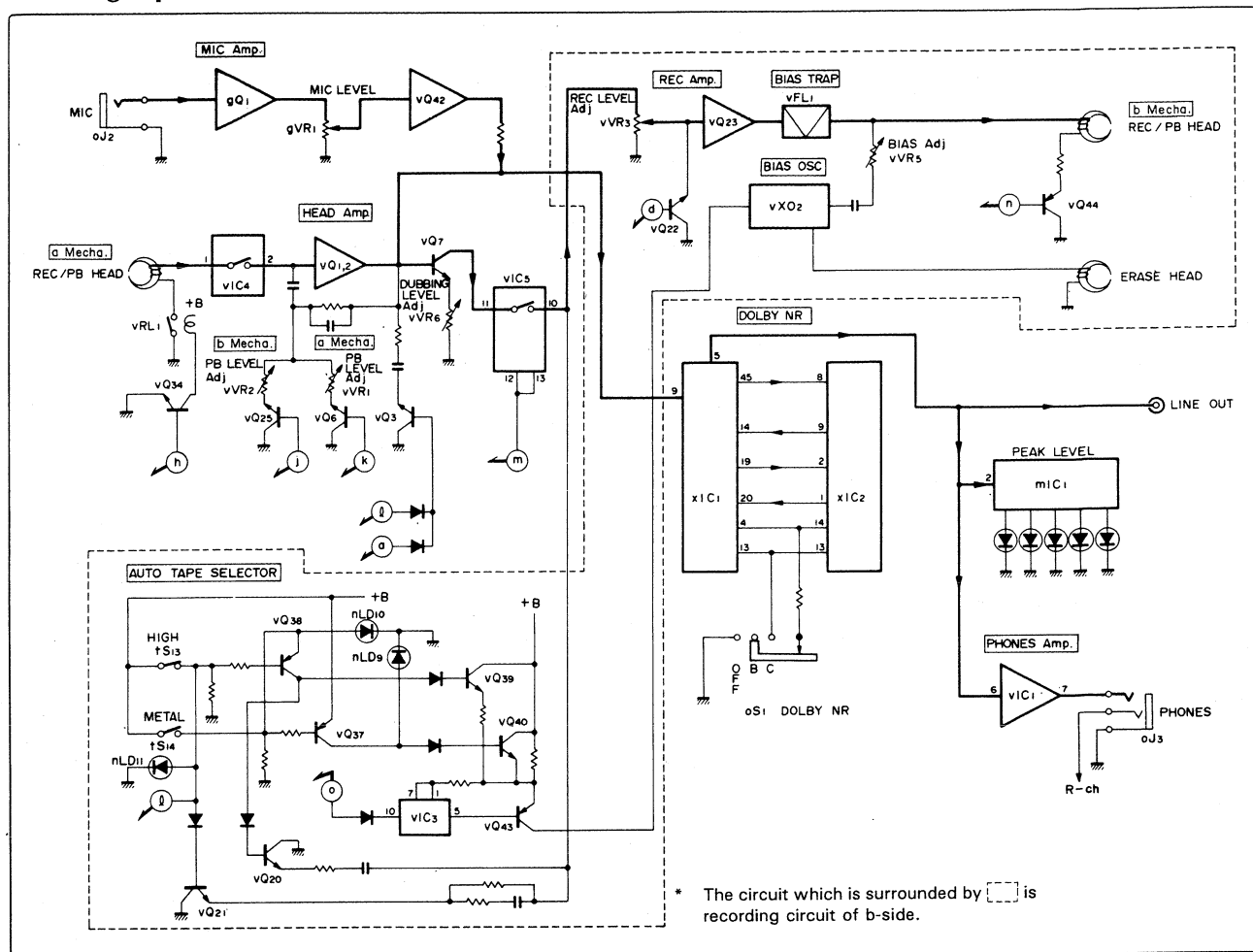
1-2. Playback Operation



1-3. Logic Control Operation



1-4. Dubbing Operation



List 1-1. LINE OUT signal, PHONE OUT signal, Operation of DOLBY NR & Operation of Head on the occasion of each Operation

	Operation of D-W9	LINE OUT Signal	PHONE OUT Signal	Operation of DOLBY NR	Operation of Head
1	A Mecha.....PLAY	A, M	A, M	P	P
2	B Mecha.....PLAY	B, M	B, M	P	P
3	A Mecha.....REC	L, M	L, M	R	R
4	B Mecha.....REC	L, M	L, M	R	R
5	A Mecha.....PLAY	A, M	A, M	P	P
	B Mecha.....REC (Dubbig SW.....ON)				R
6	A Mecha.....REC	L, M	L, M	R	R
	B Mecha.....REC (ab SW.....ON)				R

Note : A, M.....A Mecha. Play Back Signal & Mic Signal
 B, M.....B Mecha. Play Back Signal & Mic Signal
 L, M.....Line Signal & Mic Signal
 P.....Play Back
 R.....Record

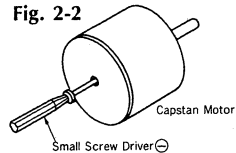
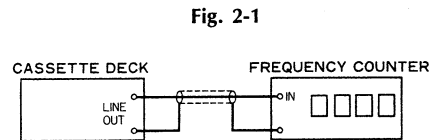
List 1-2. Principal terminal OUTPUT Potential of MB8841-1102M(WIC2)

Pin No.	9	11	12	23	24	26	27	29
Function	(b Mecha.) REC/PB	REC (a)	REC (b)	REC-MUTE	BIAS	Half Lamp (a)	Half Lamp (b)	REC/PB
DUBBING	H	L	H	L	L	H	H	H
PLAY	a	H	L	L	H	H	L	H
	b	L	L	L	H	L	H	H
REC	a	L	H	L	L	H	L	L
	b	H	L	H	L	L	H	L
REC ab	H	H	H	L	L	H	H	L
PLAY a	H	L	L	H	H	H	L	H
REC a	H	H	L	L	L	H	L	L
PLAY b	L	L	L	H	H	L	H	H
REC b	H	L	H	L	L	L	H	L

2. ADJUSTMENTS

2-1. Tape Speed Adjustment

Note: 1. Use Sansui Test Tape, SCT-3SK
(3 kHz signals are recorded on the tape).
2. Connections are shown in Fig. 2-1.

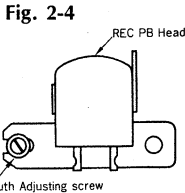
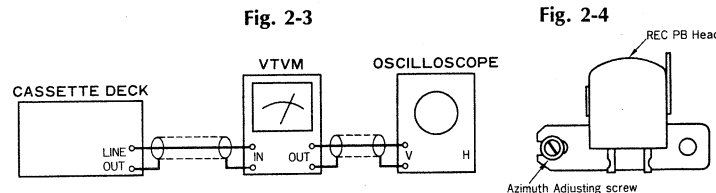


STEP	SUBJECT	MEASURE OUTPUT	SETTING	ADJUSTMENT	ADJUST FOR	REMARKS
1.	A Side Mecha.	LINE OUT Frequency counter	Playback the TEST TAPE SCT-S3K. A Side Mecha	Turn semi-variable resistor of A Side Mecha. as Fig. 2-2	3000Hz \pm 45Hz	Use small screw driver.
2.	B Side Mecha.		Playback the TEST TAPE SCT-S3K. B Side Mecha.	Turn semi-variable resistor of B Side Mecha. as Fig. 2-2.		

*Torque of this model: PLAY 35g·cm ~ 55g·cm
FF, REW more than 70g·cm

2-2. Playback Adjustment

Note: 1. Before this adjustment, clean REC/P.B. head surface.
2. For this adjustment, use Sansui Test Tape, SCT-F10K, SCT-L400 and SCT-F1K.
3. Set the Dolby NR switch to be OFF.
4. Connections are shown in Fig. 2-3.



1) A-Side Mecha. Adjustment

Note: Push a button.

STEP	SUBJECT	MEASURE OUTPUT	SETTING	ADJUSTMENT	ADJUST FOR	REMARKS
1.	P.B. Head Adj.	LINE OUT VTVM and Scope	Playback the TEST TAPE SCT-F10K	Adjust the azimuth adjusting screw in Fig. 2-4.	MAX. Output both channels.	Refer to removal of Lid Ass'y on Page 10. After this adjustment, lock the screw with paint.
2.	Playback Level Adj.	Same as above	Playback the TEST TAPE SCT-L400	Adjust each vVR1 on L-CH and R-CH. (F-3942)	540mV \pm 1 dB	See Top View on Page 9.
3.	High Frequency Equalization Check	Same as above	Playback the TEST TAPE SCT-F1K.	—	—	Read output levels on both channels.
			Playback the TEST TAPE SCT-F10K	—	—	Confirm that the output levels are within \pm 3 dB comparing with the above readings.

2) B-Side Mecha. Adjustment

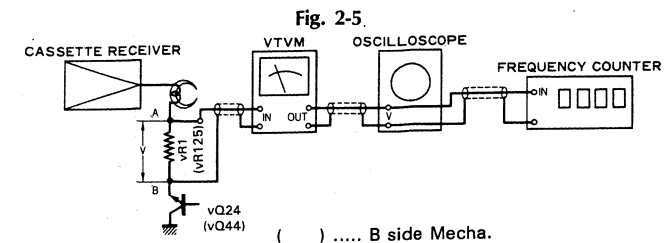
Note: Push b button.

STEP	SUBJECT	MEASURE OUTPUT	SETTING	ADJUSTMENT	ADJUST FOR	REMARKS
1.	REC/P.B. Head Adj.	LINE OUT VTVM and Scope	Playback the TEST TAPE SCT-F10K	Adjust the azimuth adjusting screw in Fig. 2-4	MAX. Output both channels.	Refer to removal of Lid Ass'y on Page 10. After this adjustment, lock the screw with paint.
2.	Playback Level Adj.	Same as above	Playback the TEST TAPE SCT-L400	Adjust each vVR2 on L-CH and R-CH. (F-3942)	540mV \pm 1 dB	See Top View on Page 9.
3.	High Frequency Equalization Check	Same as above	Playback the TEST TAPE SCT-F1K.	—	—	Read output levels on both channels.
			Playback the TEST TAPE SCT-F10K	—	—	Confirm that the output levels are within \pm 3dB comparing with the above readings.

2-3. Recording Adjustment

1) Bias Adjustment

• Perform this adjustment, when replacing bias osc circuit, variable resistor for bias adjustment or REC/PB head.
Note: 1. For this adjustment, use Sansui Test Tape, SCT-SA.
2. Set the Dolby NR Switch to be OFF.
3. Connections are shown in Fig. 2-5.



a. A-side Mecha. Adjustment

Push a button.

STEP	SUBJECT	MEASURE OUTPUT	SETTING	ADJUSTMENT	ADJUST FOR	REMARKS
1.	Recording Bias Adj.	Between (A) & (B) points of each VR1 (F-3941) VTVM, Scope, Frequency Counter	Load the TEST TAPE SCT-SA. Push REC button.	Adjust vVR4 (L-ch, R-ch) (F-3941)	40mV	See Top View on Page 9.
			Load the TEST TAPE SCT-AD. Push REC button.	—	—	Confirm the indication on VTVM shows 25mV.
			Load the TEST TAPE SCT-MA. Push REC button.	—	—	Confirm the indication on VTVM shows 75mV.
2.	Bias Frequency Adj.	Same as above	Load the TEST TAPE SCT-SA. Push REC button.	Adjust core of OSC block (vX01).	85kHz \pm 10kHz	See Top View on page 9.
3.	Bias Trap Adj.	Between Collector of vQ5 (L-ch, R-ch) & Earth. (F-3941) Scope	Load the TEST TAPE SCT-SA. Push REC button.	Adjust vFL2 (L-ch, R-ch) (F-3941)	Until bias signal well be minimum on scope.	

b. B-side Mecha. Adjustment

Note: Push b button.

STEP	SUBJECT	MEASURE OUTPUT	SETTING	ADJUSTMENT	ADJUST FOR	REMARKS
1.	Recording Bias Adj.	Between (A) & (B) points of each vR125 (F-3941) VTVM, Scope, Frequency Counter	Load the TEST TAPE SCT-SA. Push REC button.	Adjust vVR5 (L-ch, R-ch) (F-3941)	40mV	See Top View on Page 9.
			Load the TEST TAPE SCT-AD. Push REC button.	—	—	Confirm the indication on VTVM shows 25mV.
			Load TEST TAPE SCT-MA. Push REC button.	—	—	Confirm the indication on VTVM shows 75mV.
2.	Bias Frequency Adj.	Same as above	Load the TEST TAPE SCT-SA. Push REC button.	Adjust core of OSC block (vX02).	85kHz \pm 10kHz	See Top View on page 9.
3.	Bias Tape Adj.	Between Collector of vQ4 (L-ch, R-ch) & Earth. (F-3941) Scope	Load the TEST TAPE SCT-SA. Push REC button.	Adjust vFL1 (L-ch, R-ch).	Until bias signal well be minimum on scope.	

◆ List of Sansui Test Tape

Name of TEST TAPE	Recorded Frequency	Description	Equivalent To
SCT-F40	40 Hz	Playback Frequency Response Check	—
SCT-F1K	1 kHz	High Frequency Equalization Check	—
SCT-F10K	10 kHz	REC/PB Head Adjustment	—
SCT-L400N	400 Hz	Playback Level and Indicator Level Adjustment	—
SCT-S3K	3 kHz	Speed Check and Wow & Flutter Check	—
*SCT-AD NORMAL (LH)	—	Recording Bias Adjustment	TDK AD
*SCT-SA HIGH (CrO ₂)	—	REC/PB Level Adjustment	TDK SA
*SCT-MA (METAL)	—	Frequency Response Check	TDK MA

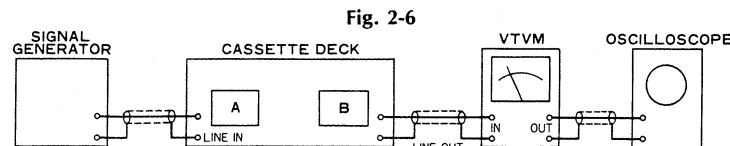
• Note: Some reference tapes marked * are not supplied.
As these are equivalent to ones indicated above, please obtain these blank tapes on your side as possible.

2) REC Level & Frequency Response Adjustment

Note: 1. Connections are shown in Fig. 2-6.
2. Set the Dolby NR switch to be ON (C-TYPE)

a. A-Side Mecha. Adjustment

Note: Push a button.



STEP	SUBJECT	INPUT SIGNAL	MEASURE OUTPUT	SETTING	ADJUSTMENT	REMARKS
1.	REC Level Adj.	Feed 1kHz, 50mV from S.G. into LINE IN.	LINE OUT VTVM and Scope	Load the TEST TAPE SCT-SA. 1. Push REC button. 2. Playback the 1kHz signal.	Adjust vVR3 (L-ch, R-ch) until playback level of the A side Mecha. and output signal level on recording operation will be equal.	vVR3 are shown in Top View on Page 9.
2.	Frequency Response Adj.	Feed 1 kHz 15mV and 10kHz 15mV from SG into LINE IN	LINE OUT VTVM and Scope	Load the TEST TAPE SCT-SA. 1. Record the 1kHz and 10 kHz signals from S.G. 2. Playback the 1kHz and 10kHz signals, then confirm 10 kHz signal level in less than 1kHz signal level $\pm 2\text{dB}$ on VTVM	1. If not, adjust vVR4 (L-ch, R-ch) (F-3941) slightly until the 10kHz signal level in less than 1kHz signal level $\pm 2\text{dB}$ on VTVM.	As vVR4 are previously adjusted turn them slightly, if necessary.

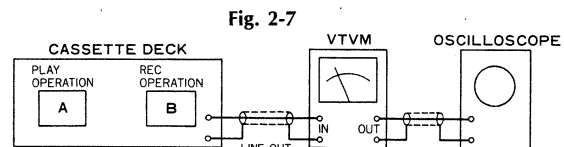
b. B-Side Mecha. Adjustment

Note: Push b button.

STEP	SUBJECT	INPUT SIGNAL	MEASURE OUTPUT	SETTING	ADJUSTMENT	REMARKS
1.	REC Level Adj.	Feed 1kHz, 50mV from S.G. into LINE IN.	LINE OUT VTVM and Scope	Load the TEST TAPE SCT-SA. 1. Push REC button. 2. Playback the 1kHz signal.	Adjust vVR3 (L-ch, R-ch) until playback level of the B side Mecha. and output signal level on recording operation will be equal.	vVR3 are shown in Top View on Page 9.
2.	Frequency Response Adj.	Feed 1 kHz 15mV and 10kHz 15mV from SG into LINE IN	LINE OUT VTVM and Scope	Load the TEST TAPE SCT-SA. 1. Record the 1kHz and 10 kHz signals from S.G. 2. Playback the 1kHz and 10kHz signals, then confirm 10 kHz signal level in less than 1kHz signal level $\pm 2\text{dB}$ on VTVM	1. If not, adjust vVR5 (L-ch, R-ch) (F-3941) slightly until the 10kHz signal level in less than 1kHz signal level $\pm 2\text{dB}$ on VTVM.	As vVR5 are previously adjusted turn them slightly, if necessary.

3) DUBBING Level Adjustment

Note: 1. Connections are shown in Fig. 2-7.
2. Set the Dolby NR switch to be OFF.



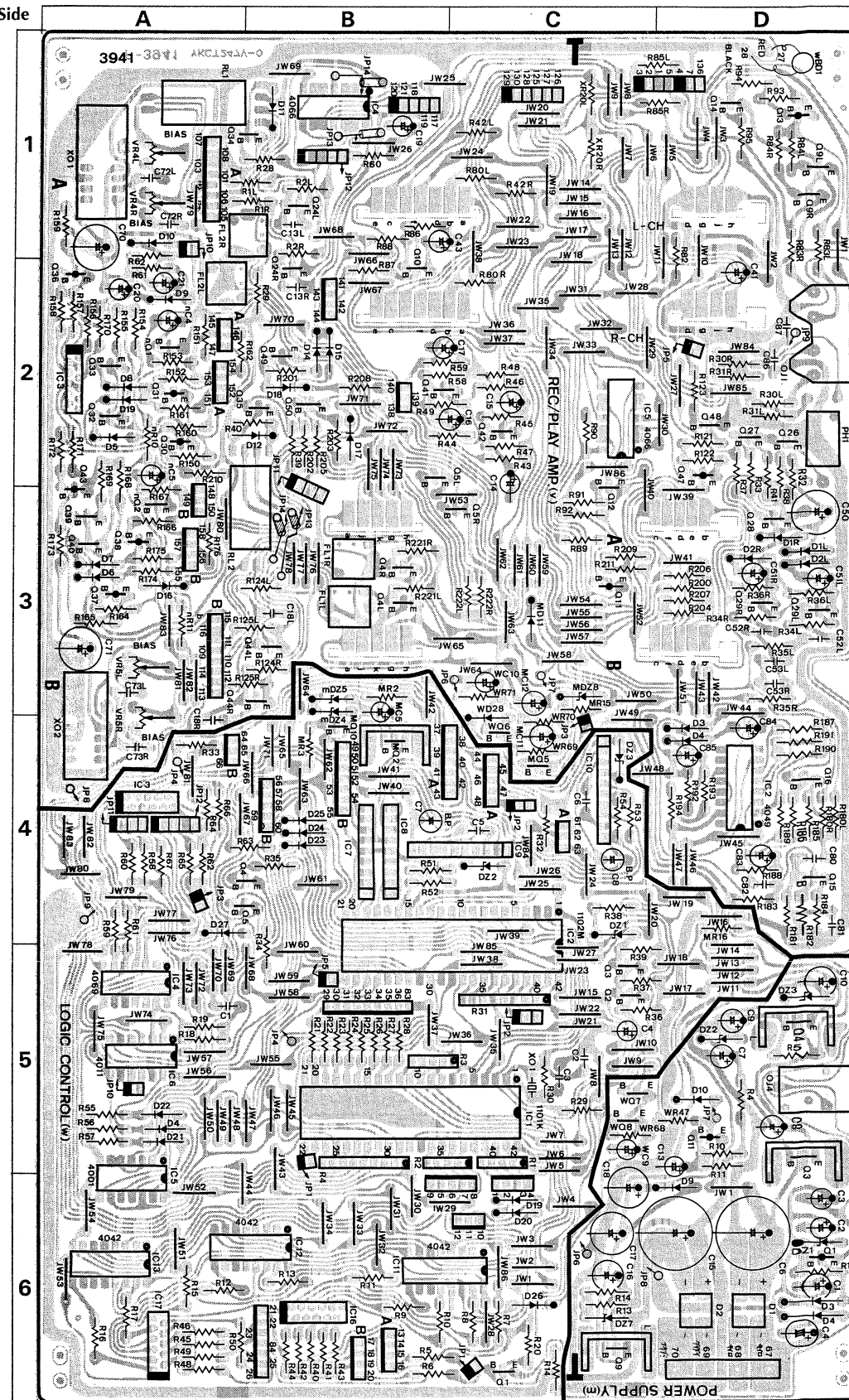
STEP	SUBJECT	INPUT SIGNAL	MEASURE OUTPUT	SETTING	ADJUSTMENT	REMARKS
1.	DUBBING Level Adj.	—	LINE OUT VTVM and Scope	Load the TEST TAPE SCT-F1K to A side Mecha. Load the TEST TAPE SCT-SA to B side Mecha. 1. Dubbing switch ON. 2. Push PAUSE button. 3. Playback the 1kHz signal (TEST TAPE SCT-SA) of B side Mecha.	Adjust vVR6 (L-ch, R-ch) until playback level of the A side Mecha. and B side Mecha. will be equal.	vVR6 are shown in Top View on Page 9.

3. PARTS LOCATION & PARTS LIST

3-1. F-3941 Main Circuit Board (Stock No. 00725901)

• Since some of capacitors and resistors are omitted from parts lists in this Service Manual, refer to the Common Parts List for capacitors & resistors, which was appended previously to Sansui Manual.

Component Side

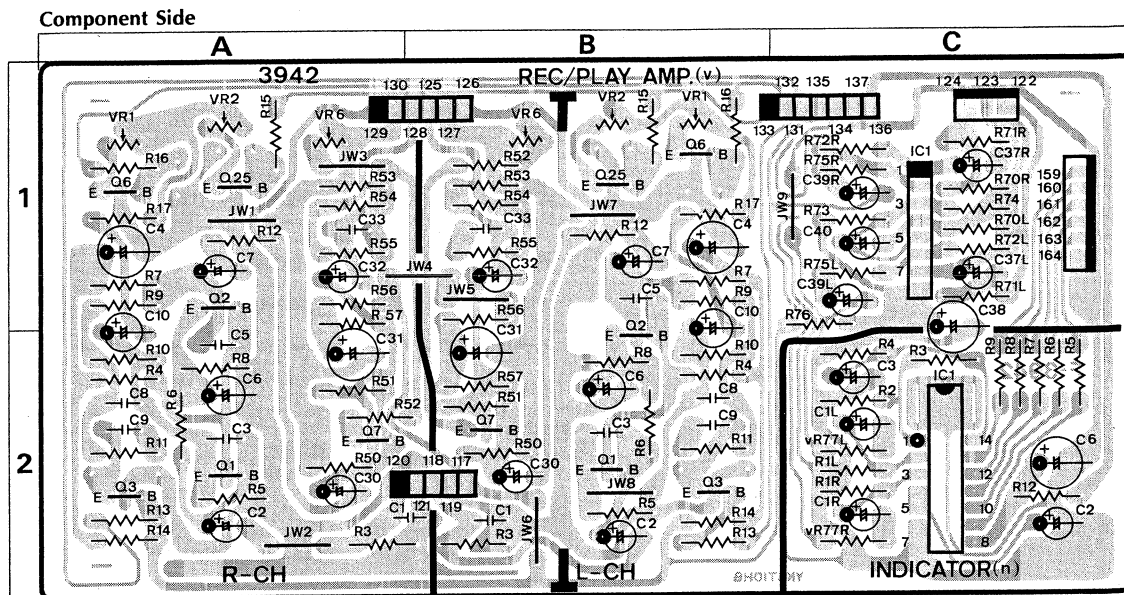


Parts List

Parts No.	Stock No.	Description
●Transistor		
mQ1, 11	46367001	2SA1115
	or 46392001	2SA1175
mQ2~4	03086101	2SD357
mQ5	46359801	2SC2001
mQ9	07287101	2SD1147
mQ10	46367101	2SC2603
	or 46391901	2SC2785
●Diode		
mD1, 2	46273600	DBB10-B
mD3, 4	03117700	10E-2
mD9~11	03117600	1S2473D
	or 46086000	1S1588
●Zener Diode		
mDZ1, 3	46111500	05Z5.6
mDZ2	46113900	05Z12
mDZ4	46111100	05Z5.1
mDZ5	46112100	05Z6.8
mDZ7	46114800	05Z16
mDZ8	46114500	05Z15
●Transistor		
nQ1, 2	46367101	2SC2603
	or 46391901	2SC2785
oJ1	46363800	4P INPUT/OUTPUT Terminal Board
oJ4	46411800	Jack, COMPU EDIT.
●Transistor		
vQ4, 5	46367101	2SC2603
	or 46391901	2SC2785
vQ9, 10	46367101	2SC2603
	or 46391901	2SC2785
vQ11, 13	46367001	2SA1115
	or 46392001	2SA1175
vQ12	46367101	2SC2603
	or 46391901	2SC2785
vQ14~16	46367101	2SC2603
	or 46391901	2SC2785
vQ24	46367101	2SC2603
	or 46391901	2SC2785
vQ26~29	46367101	2SC2603
	or 46391901	2SC2785
vQ30, 31	46367001	2SA1115
	or 46392001	2SA1175
vQ32~35	46367101	2SC2603
	or 46391901	2SC2785
vQ36~38	46367001	2SA1115
	or 46392001	2SA1175
vQ39~42	46367101	2SC2603
	or 46391901	2SC2785
vQ43, 47	46367001	2SA1115
	or 46392001	2SA1175
vQ44	46367101	2SC2603
	or 46391901	2SC2785
vQ48~50	46367101	2SC2603
	or 46391901	2SC2785
●IC		
vIC2	03611800	MSM4049RS
vIC3	46502800	TA78
vIC4, 5	46421000	μPD4066BC
●Diode		
vD1~12	03117600	1S2473D
	or 46086000	1S1588
vD14~19	03117600	1S2473D
	or 46086000	1S1588
vD20	03111600	1S2473
	or 03111800	1S1588
vPH1	09200800	Photo Coupler P873-G35-911
VR32	46229800	470Ω 1/2W N.I.R.

Parts No.	Stock No.	Description
●Capacitor		
vC13, 18	07211700	1000pF 25V C.C.
vC52	07215800	0.01μF 25V C.C.
vC80, 82	07216000	0.015μF 25V C.C.
vC81	07215000	2200pF 25V C.C.
vC86, 87, 89	07214000	0.047μF 25V C.C.
vXO1, 2	46502600	OSC Block
vFL1, 2	07237900	Filter, Bias Trap
vVR4, 5	10371000	100kΩ(B) S.V.R., BIAS ADJ.
vRL1, 2	11504700	Relay
●Transistor		
wQ1~8	46367101	2SC2603
	or 46391901	2SC2785
●IC		
wIC1	46470700	MB8841-1101K
wIC2	46470800	MB8841-1102M
wIC3	46502800	TA78
wIC4	46427000	μPD4069UBC
wIC5	46443800	μPD4001BC
wIC6	46427200	μPD4011BC
wIC7, 8	46149600	BA6208
wIC9, 10	07233100	BA6109
wIC11~13	46505400	μPD4042BC
wIC16, 17	46502800	TA78
wXO1	46505500	Ceramic Element
●Diode		
wD4	03117600	1S2473D
	or 46086000	1S1588
wD19~28	03117600	1S2473D
	or 46086000	1S1588
●Zener Diode		
wDZ1	46109700	05Z3.3
wDZ2, 3	46112700	05Z8.2
●Array Resistor		
wR1, 3	46038900	22kΩ-4
wR2	46038100	4.7kΩ-4
wR4, 31	46045500	4.7kΩ-8
●Capacitor		
wC1	07211700	1000pF 25V C.C.
wC5, 6	07215800	0.01μF 25V C.C.
wC7, 8	08451000	10μF 16V E.B.
wC12, 13	07214000	0.047μF 25V C.C.
wBZ1	07244900	Buzzer

3-2. F-3942 Head Amp. & Level Indicator Crcit Board (Stock No. 00726001)



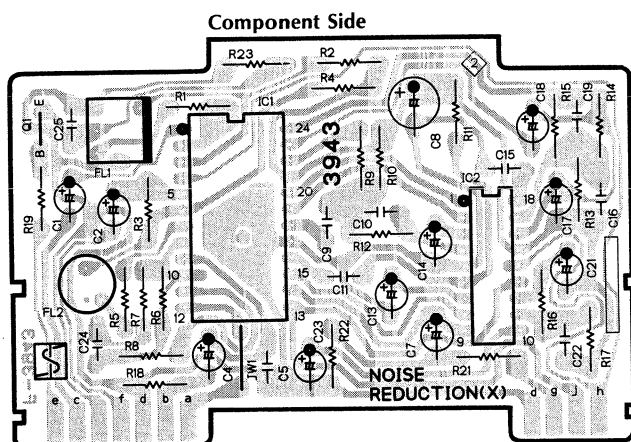
Parts List

Parts No.	Stock No.	Description
•IC		
nIC1	03611600	LB1416
•Transistor		
vQ1, 2, 7	07225401	2SC2320L
vQ3, 6, 25	46367101	2SC2603
or 46391901		2SC2785
•IC		
vIC1	46147700	M5218L
vR76	46229600	330Ω 1/2W N.I.R.

Parts No. Stock No. Description

•Capacitor		
vC2	46030200	4.7μF 25V E.L.
vC8	07215200	3300pF 25V C.C.
vC9	07214900	1800pF 25V C.C.
vC88	07214000	0.047μF 25V C.C.
vVR1, 2	46336900	2.2kΩ S.V.R., P.B. LEVEL ADJ.
vVR6	46336300	220Ω S.V.R., DUBBING LEVEL ADJ.

3-3. F-3943 DOLBY NR Circuit Board (Stock No. 00726101)

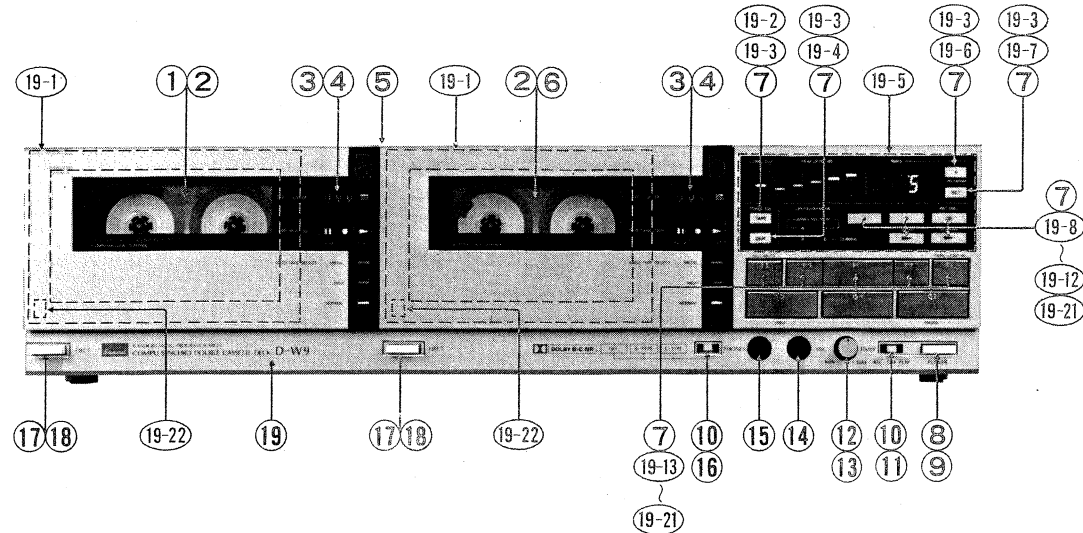


Parts List

Parts No.	Stock No.	Description
•Transistor		
xQ1	46367101	2SC2603
or 46391901		2SC2785
•IC		
xIC1	46503200	NE654
xIC2	46503100	NE652
•Capacitor		
xC1, 4	46034900	3.3μF 50V E.L.
xC5	07211700	1000pF 25V C.C.
xC9, 16,	07216400	0.033μF 25V C.C.
22		
xC10, 11	07215400	4700pF 25V C.C.
xC15	07216600	0.047μF 25V C.C.
xC19	07216800	0.068μF 25V C.C.
xC24	07215800	0.01μF 25V C.C.
xC25	07215100	2700pF 25V C.C.
xFL1	46177500	Dolby Filter
xFL2	46177600	Trap Filter, 19.8 MHz

4. OTHER PARTS

4-1. Front View



Parts List <Front View>

Parts No.	Stock No.	Description
<Silver & Black Model>		
2	47127700	Mechanism Panel Ass'y
3	46502100	Tape Counter
4	47122500	Counter Belt
7	46133300	Push SW., P, SET, DUBBING, mechanism control, a, b, ab, SERIES, TAPE, DISK
8	47113700	Knob, POWER
9	46360300	Push SW., POWER
10	47126000	Slide Knob, TIMER, DOLBY NR
11	46408600	Slide SW., TIMER
13	07106701	20kΩ VR, MIC LEVEL
14	46502200	Jack, MIC
15	46096600	Jack, PHONES
16	46503700	Slide SW., DOLBY NR
17	47113900	Knob, EJECT
18	47122800	Spring, eject knob

<Silver Model>

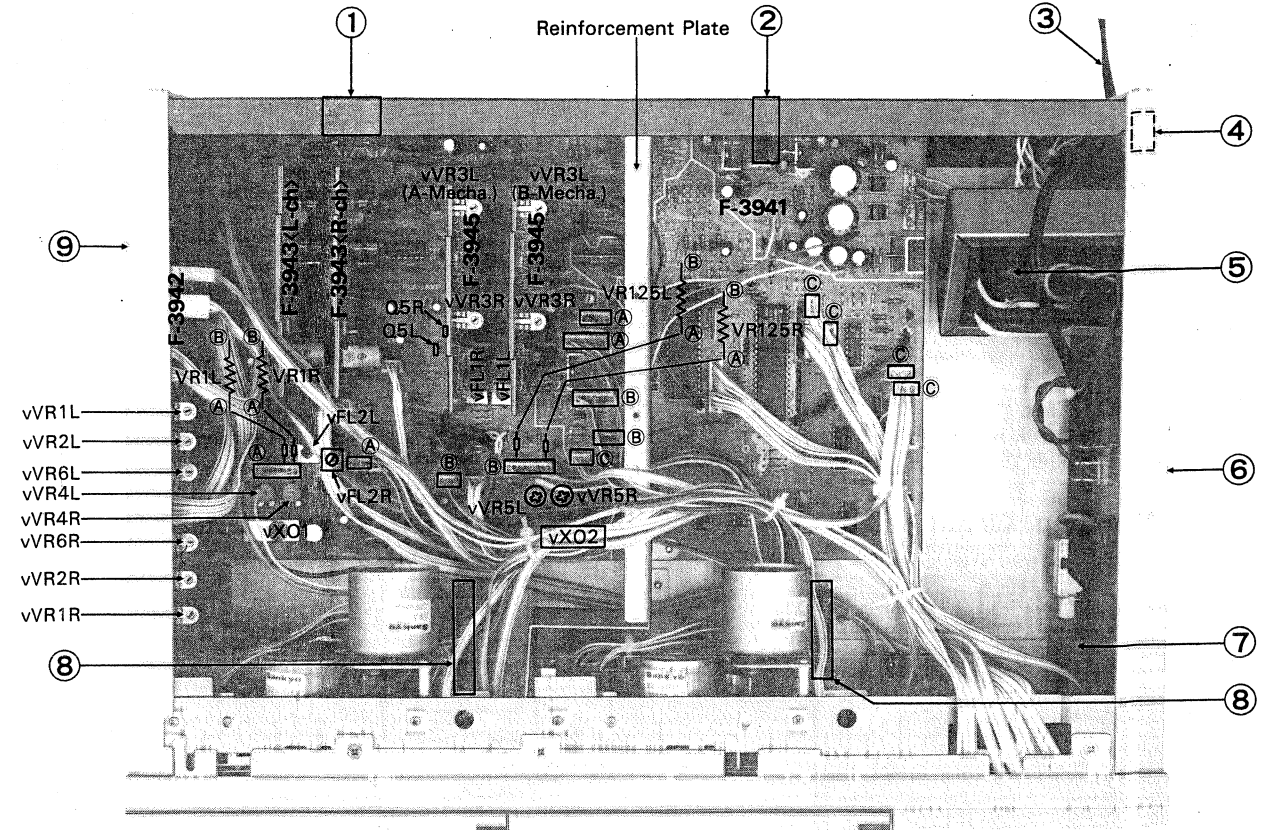
1	47127800	Lid Ass'y A
5	47121300	Bonnet
6	47127900	Lid Ass'y B
12	47127100	Knob, MIC VR
19	47128600	Front Panel Ass'y
19-1	47129000	Cassette Well Ass'y
19-2	47113400	Push Knob, TAPE
19-3	47122700	Spring, TAPE Knob, DISK Knob, P Knob, SET Knob, a knob, b knob, ab knob, SERIES Knob, DUBBING Knob
19-4	47113200	Push Knob, DISK
19-5	47113000	Control Panel
19-6	47113500	Push Knob, P
19-7	47113300	Push Knob, SET
19-8	47112100	Push Knob, a
19-9	47112200	Push Knob, b
19-10	47112300	Push Knob, ab
19-11	47112400	Push Knob, SERIES
19-12	47112500	Push Knob, DUBBING
19-13	47107500	Push Knob, REC MUTE
19-14	47107300	Push Knob, REW

Parts No.	Stock No.	Description
19-15	47107600	Push Knob, PLAY
19-16	47107200	Push Knob, FF
19-17	47107400	Push Knob, TAPE LEAD IN
19-18	47107700	Push Knob, REC
19-19	47107900	Push Knob, STOP
19-20	47107800	Push Knob, PAUSE
19-21	47086900	Spring, mechanism control knob
19-22	47122900	Spring, cassette well

<Black Model>

1	47128000	Lid Ass'y A
5	47121400	Bonnet
6	47128100	Lid Ass'y B
12	07680600	Knob, MIC VR
19	47128700	Front Panel Ass'y
19-1	47129000	Cassette Well Ass'y
19-2	47113400	Push Knob, TAPE
19-3	47122700	Spring, TAPE Knob, DISK Knob, P Knob, SET Knob, a knob, b knob, ab knob, SERIES Knob, DUBBING Knob
19-4	47113200	Push Knob, DISK
19-5	47113000	Control Panel
19-6	47113500	Push Knob P
19-7	47113300	Push Knob, SET
19-8	47112100	Push Knob, a
19-9	47112200	Push Knob, b
19-10	47112300	Push Knob, ab
19-11	47112400	Push Knob, SERIES
19-12	47112500	Push Knob, DUBBING
19-13	47126500	Push Knob, REC MUTE
19-14	47126300	Push Knob, REW
19-15	47126600	Push Knob, PLAY
19-16	47126200	Push Knob, FF
19-17	47126400	Push Knob, TAPE LEAD IN
19-18	47126700	Push Knob, REC
19-19	47126900	Push Knob, STOP
19-20	47126800	Push Knob, PAUSE
19-21	47086900	Spring, mechanism control knob
19-22	47122900	Spring, cassette well

4-2. Top View



Parts List <Top View>

Parts No.	Stock No.	Description
1	46363800	4P INPUT/OUTPUT Terminal Board
2	46411800	Jack, COMPU EDIT
3	38004700	Power Supply Cord
4	07917700	AC Cord Cover
5	15010501	Power Transformer

Parts No.	Stock No.	Description
6	47128200	Side Panel (R) <Silver Model>
	47128300	Side Panel (R) <Black Model>
7	47113100	Joint Shaft, power sw.
8	46370300	Eject Dumper Ass'y
9	47128400	Side Panel (L) <Silver Model>
	47128500	Side Panel (L) <Black Model>

5. MAIN PARTS REPLACEMENT

(See Exploded View on page 12 & Top View on page 9)

A. Front panel Ass'y

- 1) Remove Lid Ass'y-a, Lid Ass'y-b and bonnet.
- 2) Detach two damper shafts from right side pins of cassette well.
- 3) Loosen six screws to remove front panel Ass'y.

B. a-Mechanism Ass'y

- 1) Remove front panel ass'y and bottom plate.
- 2) Remove a-mechanism panel and take out counter belt around take-up reel.
- 3) Pull out (A) connectors (four parts) and remove the harness. (See Top View on page 9.)
- 4) Loosen four screws fixing a-mechanism ass'y.
- 5) Pull out eject knob of a-mechanism.
- 6) Remove the left side panel.
- 7) Pull out a-mechanism Ass'y to the rear panel side.

C. b-Mechanism Ass'y

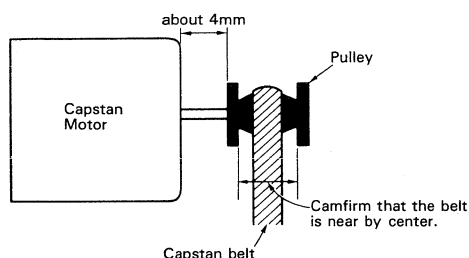
- 1) Remove front panel ass'y, b-mechanism panel and bottom plate.
- 2) Take out counter belt around take-up reel.
- 3) Pull out (B) connectors (four parts) and remove the harness. (See Top View on page 9.)
- 4) Pull out (C) connectors (five parts).
- 5) Loosen two screws fixing reinforcement plate.
- 6) Pull out power knob.
- 7) Loosen one screw fixing F-3935 circuit board.
- 8) Loosen four screws fixing b-mechanism.
- 9) Remove left and right side panel.
- 10) Remove b-mechanism ass'y.

D. Capstan motor (33) (See Exploded View on page 12)

- 1) Perform "step C. Mechanism ass'y" first.
- 2) Take off motor lead wires at motor terminal by soldering iron.
- 3) Loosen out three screws (14) fixing capstan motor mounting plate.
- 4) Loosen out three screws (37) fixing motor.
- 5) Pull out the pulley (34) from capstan motor shaft.

Note: To attach motor pulley, insert the pulley to capstan motor until the gap (between capstan motor and pulley) will be about 4 mm, while the set is moving, confirm that capstan belt is near by center of the pulley.

Fig. 5-1



E. Capstan belt (32)

- 1) Remove mechanism chassis.
- 2) Loosen out three screws (14) fixing capstan motor mounting plate.

F. Reel motor ass'y (45)

- 1) Perform "E. Capstan belt" first.
- 2) Take off cord band at reel motor cords.
- 3) Take out washer (18) and pull out take-up and supply reel table ass'y.

Note: Pay attention to loose spring plate (15) and washer (16).
 4) Remove three screws (14) fixing reel motor mounting plate.
 5) Remove two screws (13) fixing reel motor ass'y.

G. Mechanism driving motor (20)

- 1) Remove mechanism chassis.
- 2) Remove one screw (27) fixing cam gear shaft after removing steel ball fixing plate.
- 3) Remove two screws (14) fixing mechanism moving motor mounting plate.
- 4) Loosen two screws (14) fixing capstan motor mounting plate.
- 5) Remove two screws (21) fixing the motor ass'y (20) after taking cam gear (23) out of its shaft.

Note: While sliding head base and break lever to upward, insert the cam gear into its shaft.

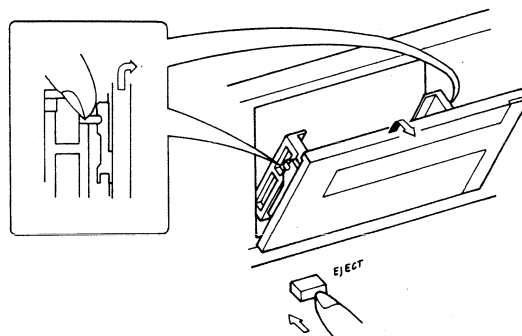
H. Idler (45-2) (Fig. 6-1)

- 1) Remove the cassette lid.
- 2) Remove the mechanism cover assembly.
- 3) Remove the washer (45-1) retaining the idler.
- 4) Take out the idler (45-2).

I. Lid Ass'y

- 1) Press the EJECT switch to open the cassette holder, push the parts locked at the left and right in the figure while pulling it upward, and remove the cover.

Fig. 5-2



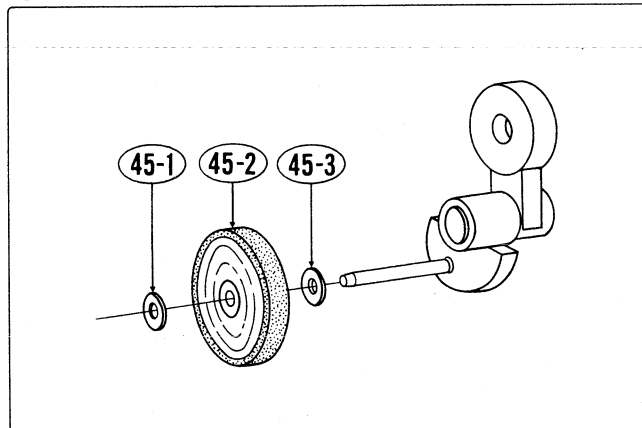
- 2) Re-attach the cover to the cassette holder by following the procedure for its removal in reverse.

6. EXPLODED VIEW & PARTS LIST

Parts List <Mechanism Ass'y>

Parts No.	Stock No.	Description	Parts No.	Stock No.	Description
1	07734000	Brake Shoe	29	08321400	Screw, M2.6 x 6
2	47156000	Spring, sensor lever	30	47041300	Flywheel
3	08322600	E-type washer, d = 2.5	31	47156400	Washer, d = 3
4	65400300	Steel Ball, d = 2φ	32	47041400	Capstan Bele
5	07735400	Head Pedestal	33	47155900	Capstan Motor
6	07734400	Spring, Rec & PB Head	34	47041600	Motor Pulley
7	47155700	Rec & PB Head	35	07734100	Cushion
8	07997400	Earth Head	36	47041700	Spacer
9	07736700	Screw, M2 x 13	37	00421400	Screw, capstan motor
10	07736500	Screw, M2 x 14	38	47041900	Washer
11	00489200	E-type Washer, d = 3	39	09462900	Pinch Roller Ass'y
12	47156100	Cassette Hold Spring	40	47042000	Spring, pinch roller
13	07736400	Screw, M2.6 x 3	41	00489000	E-type washer, d = 2
14	46396800	Screw, M2.5 x 5	42	09463100	Collar, rock plate
15	47040600	Spring, back tension	43	09463200	Spring, rock plate
16	51821600	Washer, d = 3.1	44	09463300	Screw, M2.5 x 10
17	07733100	Reel Hub Ass'y	45	09465100	Reel Motor Ass'y
18	07732600	Washer, d = 1.8	45-1	07879300	Stopper Washer
19	09446800	Rec Sensor Lever	45-2	07879200	Idler
20	47155800	Mechanism Moving Motor	45-3	07879400	Poly-trust washer, d = 2
21	07736300	Screw, M2 x 3	46	09463400	Leaf SW., rec sensor, tape selector
22	47040800	Leaf SW.	47	47156500	Collar, eject arm
23	47040900	Cam Gear	48	47156300	Spring, eject arm
24	47041000	Screw, M2.5 x 20	49	47156200	Spring, capstan
25	47041100	Screw, M2.5 x 3.5	50	09462400	Leaf SW., Half
26	00436500	Screw, M2 x 4	51	47201600	Lamp 12V 40mA
27	08321500	Screw, M2 x 4	52	47022500	Screw, M2.5 x 6
28	09462700	Steel Ball, d = 3			

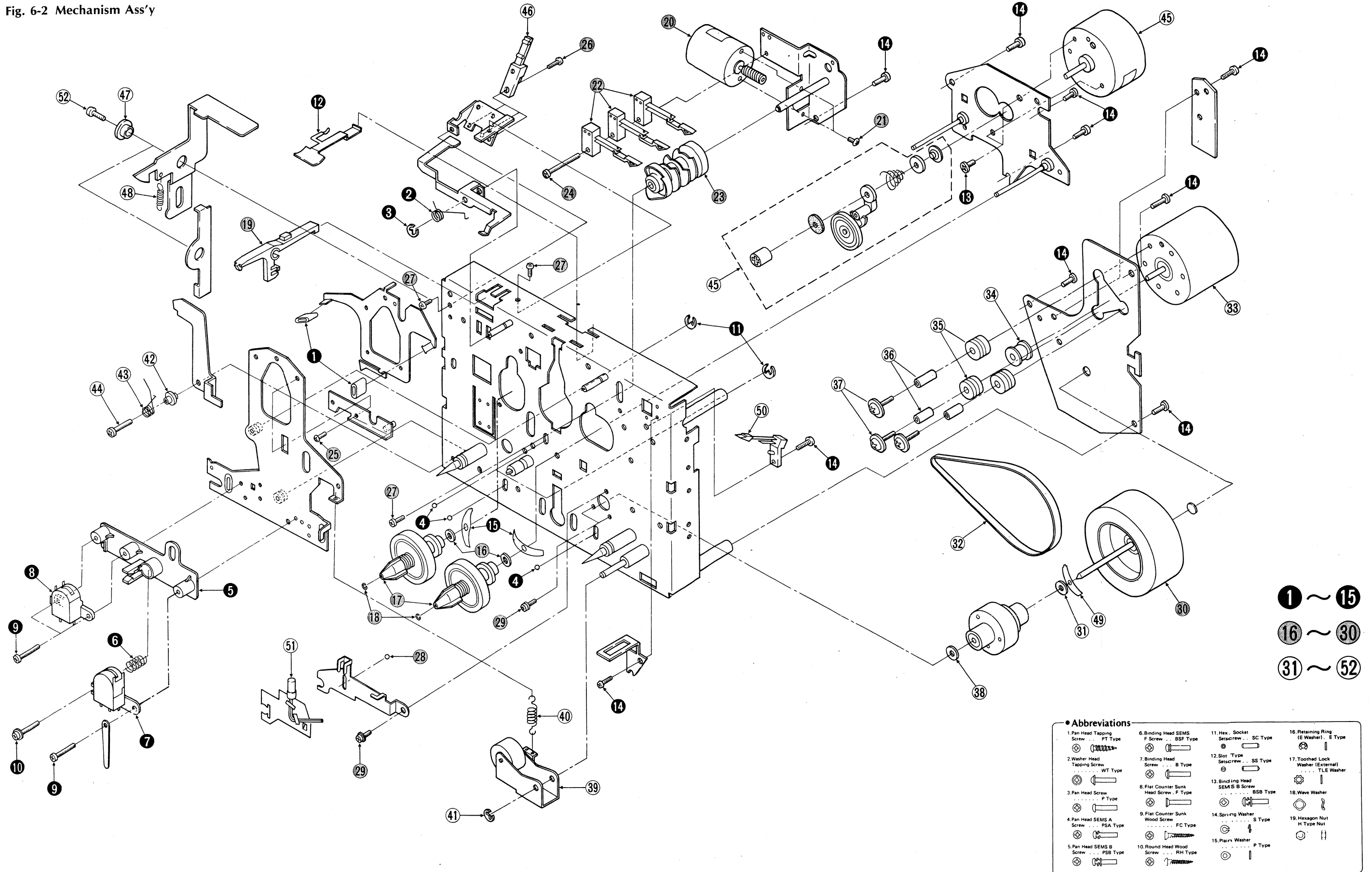
Fig. 6-1 Play Idler Ass'y



D-W9

D-W9

Fig. 6-2 Mechanism Ass'y



7. SCHEMATIC DIAGRAM 7-1. Control Section

*Design and specifications subject to change without notice for improvement.
 *La présentation et les spécifications sont susceptibles d'être modifiées sans préavis par suites d'améliorations éventuelles.
 *Änderungen, die dem technischen Fortschritt dienen, bleiben vorbehalten.

1 LOGIC (w)

wS1 TIMER
 wS2 PROGRAM
 wS3 PROGRAM SET
 wS4 DUBBING
 wS5 COMPU EDIT DISK
 wS6 COMPU EDIT DISK
 wS7 MECHANISM a
 wS8 MECHANISM b
 wS9 REC ONLY a,b
 wS10 SERIES
 wS11 PLAY
 wS12 REC
 wS13 FF
 wS14 REW
 wS15 TAPE LEAD IN
 wS16 REC MUTE
 wS17 PAUSE
 wS18 STOP

wLD1 PLAY
 wLD2 REC
 wLD3 PAUSE
 wLD4 PLAY
 wLD5 REC
 wLD6 COMPU EDIT
 wLD7 SERIES
 wLD8 DUBBING
 wLD9 RMP5 1
 wLD10 RMP5 2
 wLD11 RMP5 3

wO1-25 1S2473, 1S1588
 wLD1-2,6-7 TLG123 (GREEN)
 wLD3-5,9-11 TLY123 (RED)
 wLD12-13 TLY123 (YELLOW)
 wLD14 LA301VB
 wLD1 MB8841-1101K
 wLD2 MB8841-1102M
 wLD3 TA78
 wLD4 μ PD4069
 wLD5 μ PD4001
 wLD6 μ PD4011
 wLD7 BA6208
 wLD8 BA6109
 wLD9 μ PD4042
 wLD10 DN6838
 wLD11 05Z3.3-Y
 wLD12 05Z8.2-Y
 wLD13 2SC2603 (E,F)
 wLD14 2SC2785 (J,H,E,F)
 wLD15 PKM12-4A2
 wLD16 TA78

wO1-25 1S2473, 1S1588
 wLD1-2,6-7 TLG123 (GREEN)
 wLD3-5,9-11 TLY123 (RED)
 wLD12-13 TLY123 (YELLOW)
 wLD14 LA301VB
 wLD1 MB8841-1101K
 wLD2 MB8841-1102M
 wLD3 TA78
 wLD4 μ PD4069
 wLD5 μ PD4001
 wLD6 μ PD4011
 wLD7 BA6208
 wLD8 BA6109
 wLD9 μ PD4042
 wLD10 DN6838
 wLD11 05Z3.3-Y
 wLD12 05Z8.2-Y
 wLD13 2SC2603 (E,F)
 wLD14 2SC2785 (J,H,E,F)
 wLD15 PKM12-4A2
 wLD16 TA78

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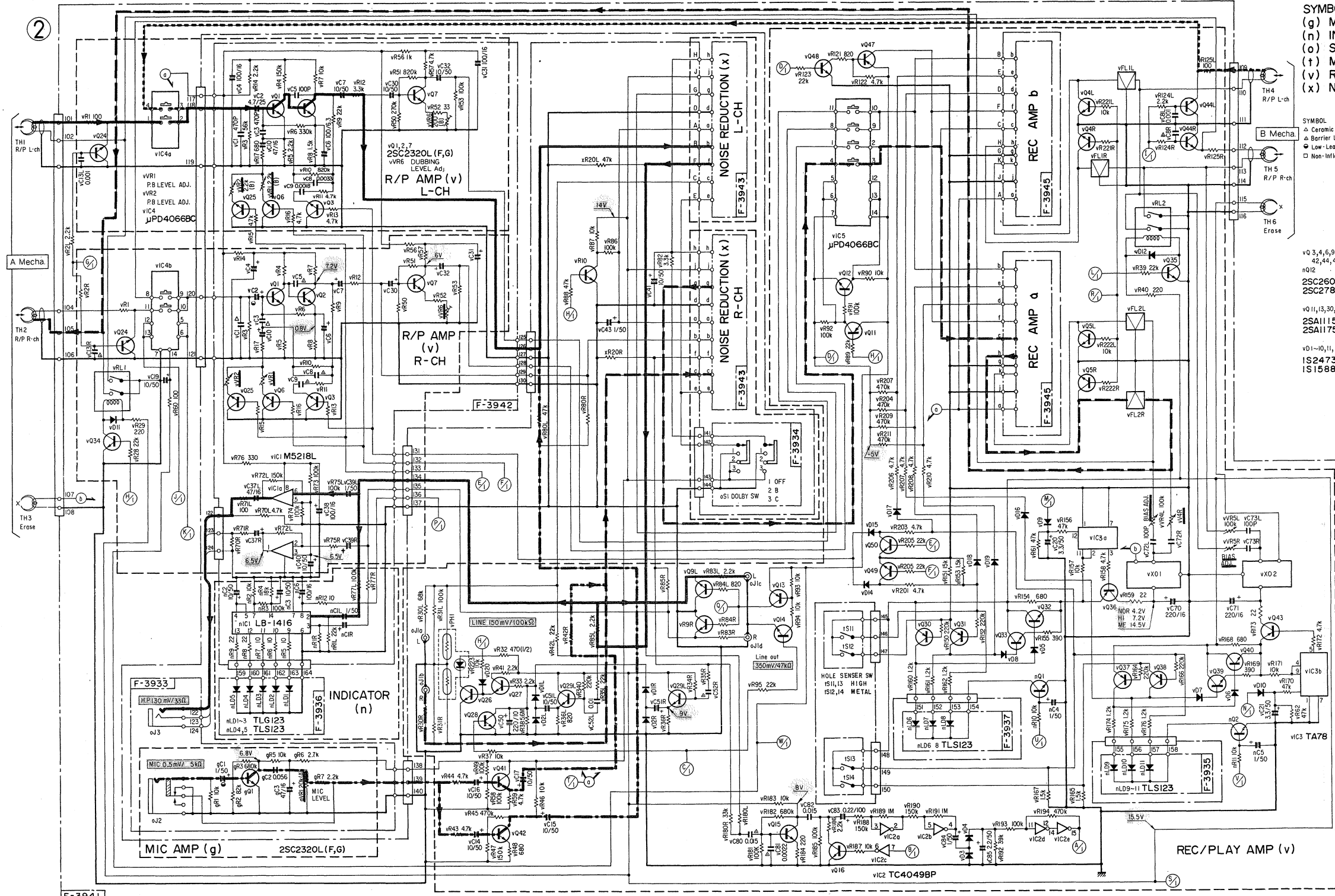
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7-2. Amplifier Section I

*Design and specifications subject to change without notice for improvement.
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 *Änderungen, die dem technischen Fortschritt dienen, bleiben vorbehalten.



SYMBOL OF FUNCTION
 (g) MIC AMP
 (n) INDICATOR
 (o) SELECTOR
 (t) MECHANISM
 (v) REC/PLAY AMP
 (x) NOISE REDUCTION

SYMBOL
 △ Ceramic
 ▽ Barrier Layer Capacitor
 ● Low-Leak Electrolytic
 □ Non-Inflammable Resistor

vQ 3, 4, 5, 9, 10, 12, 16~14, 24~29, 32~35
 42, 44, 48~54
 nQ12
 2SC2603 (E, F)
 2SC2785 (E, F, J, H)
 vQ 11, 13, 30, 31, 36~40, 43, 47
 2SA1115 (E, F)
 2SA1175 (E, F, J, H)
 vD1~10, 11, 12, 14~20
 IS2473
 IS1588

2SA1115
 2SC2001
 2SC2603
 2SC2320L

2SA1175
 2SC2785

2SD3570

BA6208

DN6838

M5218L

μPD4001BC

μPD4011BC

μPD4066BC

μPD4069UBC

μPD4042BC

MSM4049RS

LB1416

NE652

MB8841

NE654

BA6109

TA78

DB810-B

O5Z5.6

O5Z12

O5Z16

O5Z3.3

O5Z5.1

O5Z6.8

O5Z8.2

10E.2

1S1588

1S2473D

F-3941

Measuring Instruments
 Volt Meter D.C. 20kΩ/V

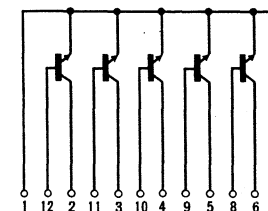
Each D.C. Voltage measured by the instruments
 described below shows the nominal value in Volts
 during recording

Electrolytic Capacitor: Capacitance (μF) / Volt (V)

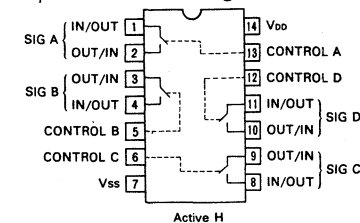
RESISTORS: Are in ohms, 1/4 Watts, ± 5% Tolerance
 Unless otherwise noted. k: kΩ, M: MΩ
 CAPACITORS: Are in μF, Unless otherwise noted. P: pF

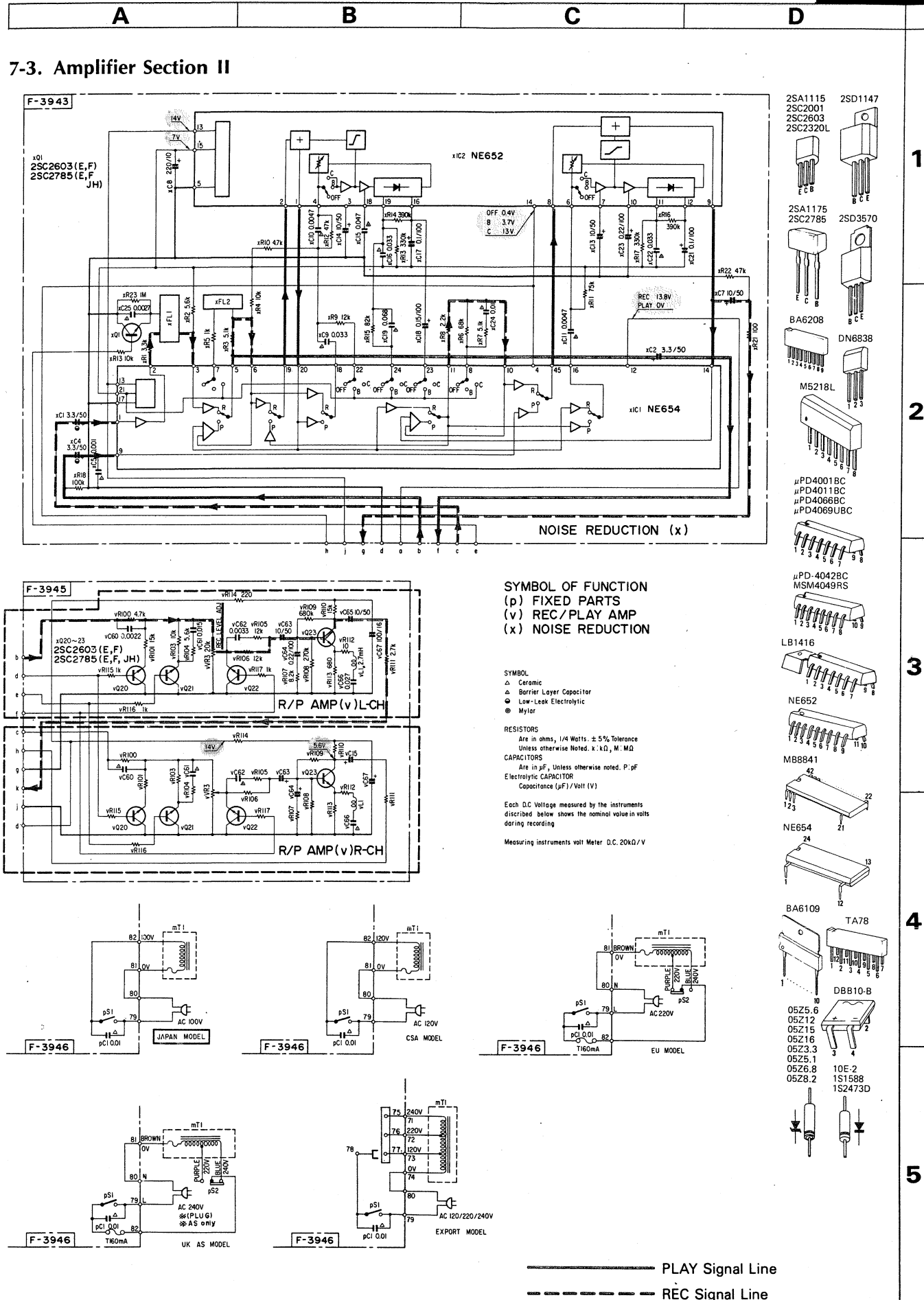
— A Mecha. PLAY Signal Line
 - - - A Mecha. REC Signal Line
 ····· B Mecha. PLAY Signal Line
 - - - MIC Signal Line

•TA78



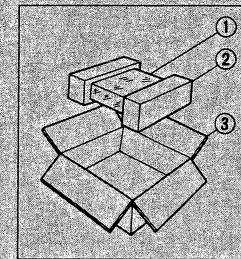
•μPD4066BC(Analog SW.)





8. PACKING LIST

Parts No.	Stock No.	Description
1	91167620	Vinyl Cover
2	47127800	Styrofoam Packing
3	47127200	Carton Case (Silver)
	47127400	Carton Case (Black)



9. ACCESSORY LIST

Stock No.	Description
38103300	Pin Plug Cord
46267300	Mini Plug Cord
94300500	Head Cleaner
46423200	Operating Instruction

SANSUI ELECTRIC CO., LTD.
 14-1, Izumi 2-chome, Suganami-ku, Tokyo 168 Japan
 PHONE: (03) 324-8891/TELEX: 232-2076 (International Division)

SANSUI ELECTRONICS CORPORATION
 1250 Valley Brook Ave. Lyndhurst, N.J. 07071 U.S.A.
 333 West Alondra Blvd. Gardena, California 90247 U.S.A.
 3036 Koapaka St. Honolulu, Hawaii 96819 U.S.A.

SANSUI ELECTRONICS (U.K.) LTD.
 Unit 10A, Lyon Industrial Estate, Rockware Avenue, Greenford, Middx UB6 0AA, England

SANSUI ELECTRONICS G.M.B.H.
 Paul Ehrlich Strasse 8, 6074 Rödermark 2, West Germany